AD-A144 837 19320A MLRS MISSILE NUMBER V-6148 V-6149 V6150 V6151 1/1
V-6163 V-6169 V-6160..(U) ARMY ELECTRONICS RESEARCH AND
DEVELOPMENT COMMAND WSMR NM ATM.. D C KELLER JUL 84
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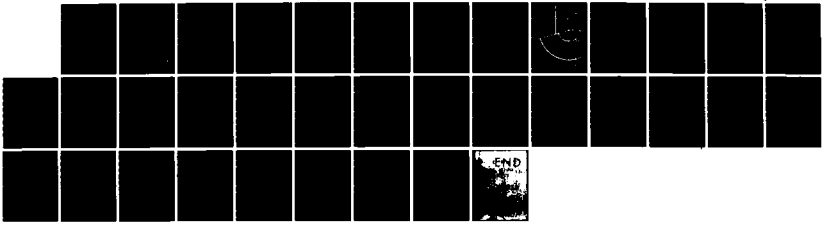

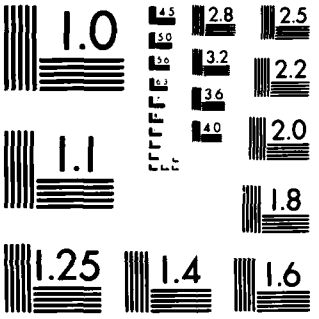

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DR-1351
Jul 84
AD

METEOROLOGICAL DATA REPORT

19320A MLRS
Missile Number V-6148, V-6149, V-6150, V-6151,
V-6163, V-6169, V-6160, V-6161, V-6164
Round Number V618/AT2-75 thru V626/AT2-83
12 July 1984

by

DONALD C. KELLER
Program Support Coordinator
Phone Number (505) 679-9568
AVN Number 349-9568

ATMOSPHERIC SCIENCES LABORATORY
WHITE SANDS MISSILE RANGE, NEW MEXICO

ECOM
UNITED STATES ARMY ELECTRONICS COMMAND

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REPORT DOCUMENTATION PAGE	READ INSTRUCTIONS BEFORE COMPLETING FORM
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17. DISTRIBUTION STATEMENT *(of the abstract entered in Block 20, if different from Report)* Approval for public release; distribution unlimited.	
18. SUPPLEMENTARY NOTES	
19. KEY WORDS *(Continue on reverse side if necessary and identify by block number)*	
20. ABSTRACT *(Continue on reverse side if necessary and identify by block number)* Meteorological data gathered for launching of the 19320A MLRS, Missile Number V-6148, V-6149, V-6150, V-6151, V-6163, V-6169, V-6160, V-6161, V-6164 Round Number V618/AT2-75 thru V626/AT2-83 are presented in tabular form.	

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CONTENTS

INTRODUCTION

19320A MLRS, Missile Numbers V-6148, V-6149, V-6150, V-6151, V-6163, V-6169, V-6160 V-6161, and V-6164, Round Numbers V618/AT2-75 thru V626/AT2-83, were launched from LC-33 White Sands Missile Range (WSMR). New Mexico, at 1400:29, 1400:34, 1400:39, 1400:44, 1400:49, 1400:54, 1445:06, 1445:11 and 1445:16 MDT, 12 Jul 84. The scheduled launch times were 1400(6T's and 1445(3T's) MDT with a 4.5 second separation.

Meteorological data were recorded and reduced by the White Sands Meteorological Team, Atmospheric Sciences Laboratory (ASL), White Sands Missile Range, New Mexico. The data were were obtained by the following methods:

1. Observations

a. Surface

(1) Standard surface observations to include pressure, temperature (°C), relative humidity, dew point (°C), density (gm/m^3), wind direction and spped, and cloud cover were made at the LC-33 Met Site at T-0 minutes.

(2) Anemometer data were provided from existing pole-mounted and tower-mounted anemometers at LC-33. Monitor of wind speed and direction form one anemometer was also provided in the launch control room.

b. Upper Air

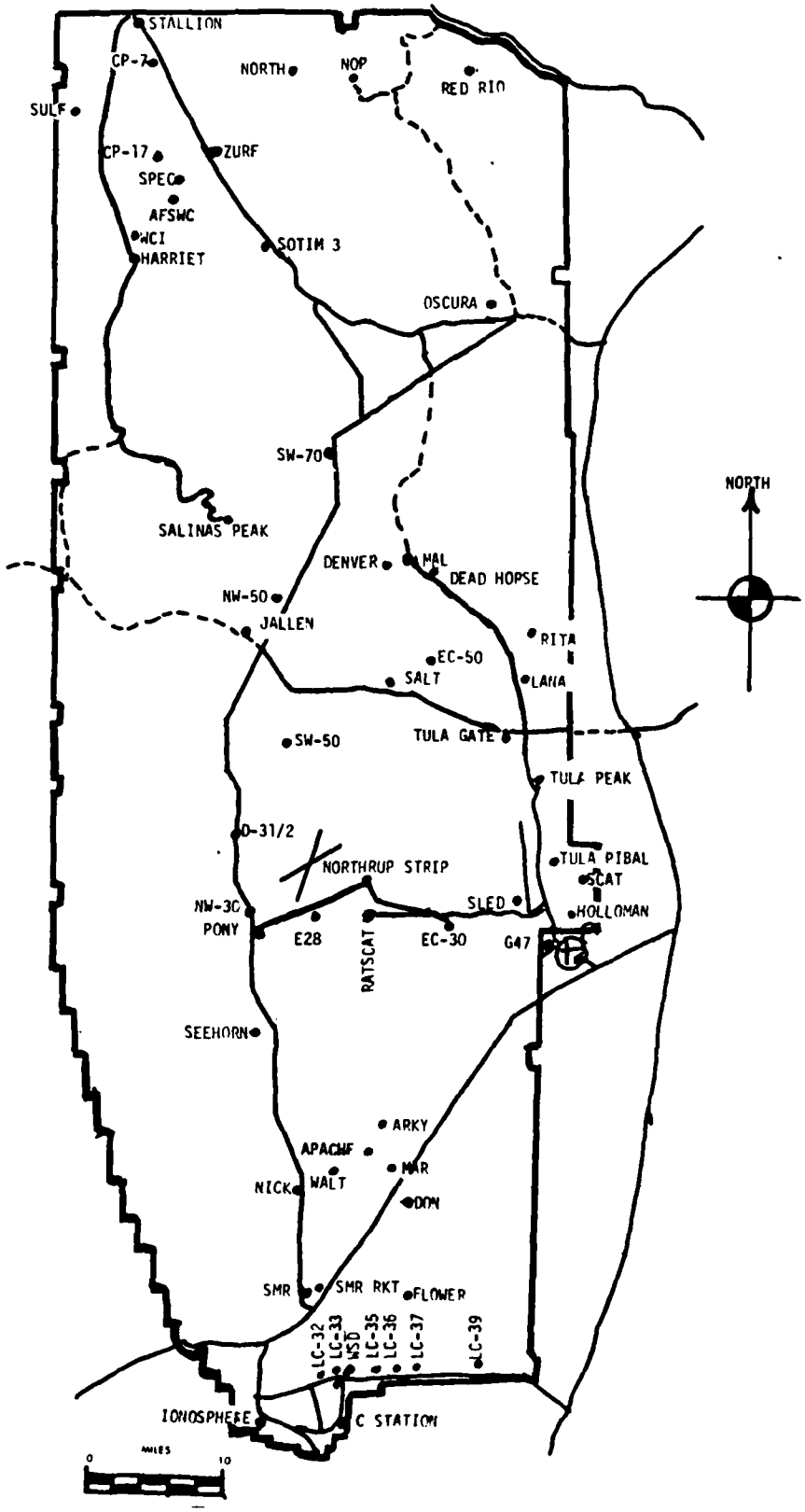
(1) Low level wind data were obtained from pilot-balloon observations at:

SITE AND ALTITUDE	
LC-33	2 km
SMR	2 km

(2) Air structure data (rawinsonde) were collected at the following Met Sites.

SITE AND TIME	
WSD	1045 MDT
WSD	1215 MDT
SMR	1245 MDT
WSD	1400 MDT
SMR	1445 MDT

WSMR METEOROLOGICAL SITES



PROJECT SURFACE OBSERVATION

TABLE 1

STATION LC-33

DATE 12 (DAY) July (MONTH) 1984 (YEAR)

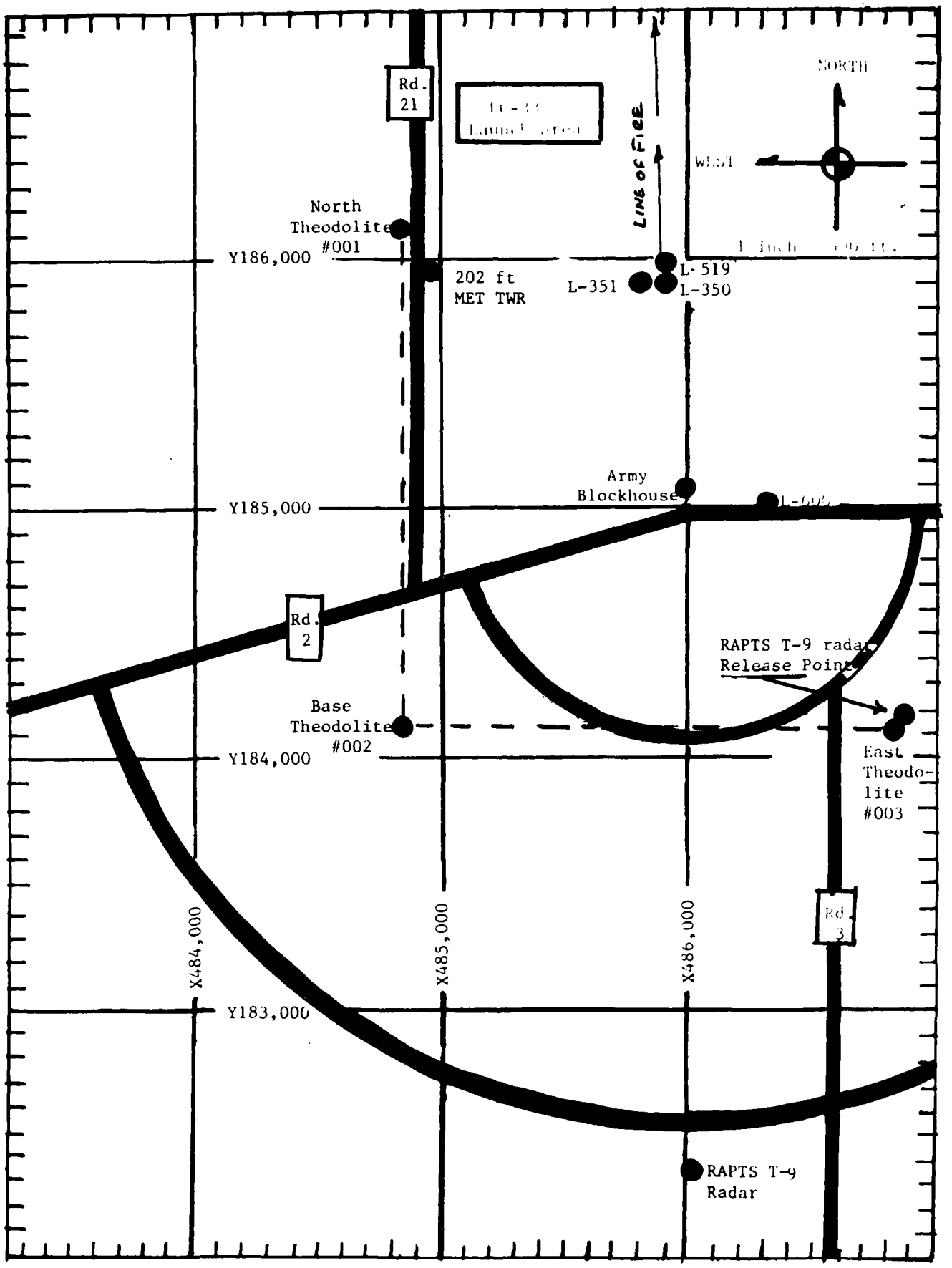
X= 484,982.64 Y= 185,957.73 H= 3,995.00

TIME MDT	PRESSURE mbs	TEMPERATURE °F	TEMPERATURE °C	DEW POINT °F	DEW POINT °C	RELATIVE HUMIDITY %	DENSITY gm/m³	WIND DIRECTION degs Tn	WIND SPEED kts	WIND CHARACTER kts	VISIBILITY
1400	878.9		28.7		18.2	53		330	06		30
1445	878.5		30.2		17.2	4.6			CALM		

OBSTRUCTIONS TO VISIBILITY	CLOUDS 1st LAYER AMT	1st LAYER TYPE	1st LAYER HGT	2nd LAYER AMT	2nd LAYER TYPE	2nd LAYER HGT	3rd LAYER AMT	3rd LAYER TYPE	3rd LAYER HGT	REMARKS
	5	CU	6,000	1	AS	10,000				CB'S ALQDS RWU AIQDS
	3	CU	6,000	2	AS	10,000				CB's NE&E RWU NEIE

PSYCHROMETRIC COMPUTATION

TIME: MDT	1400	1445	
DRY BULB TEMP.	28.7	30.2	
WET BULB TEMP.	21.2	20.8	
WET BULB DEPR.	7.5	9.4	
DEW POINT	18.2	17.2	
RELATIVE HUMID.	53	46	


Rd. 21
LINE of FIRE
NORTH
WEST
North Theodolite #001
Y186,000
202 ft MET TWR
L-351
L-519
L-350
Army Blockhouse
Y185,000
Rd. 2
RAPTS T-9 radar Release Point
Base Theodolite #002
Y184,000
East Theodo-lite #003
Rd. 3
X484,000
X485,000
X486,000
Y183,000
RAPTS T-9 Radar

LC-33 METEOROLOGICAL TOWER
ANEMOMETER MEASURED WIND DATA

WSTM COOORDINATES X=484,982.64 Y=185,957.73 H=3983.00(BASE)

TABLE NO. 2

DATE 12 July 1984 1400 M D T
DAY MONTH YEAR TIME

LEVEL #1		12 FT AGL
T-TIME(SEC)	DIR(DEG)	SPEED(KTS)
T-30	313	08
T-20	317	04
T-10	315	08
T- 0(1st T)	315	08
T+10	323	08
T+20	313	08
T+30	318	07
T+40		
T+50		
T+60		

LEVEL #2		62 FT AGL
T-TIME(SEC)	DIR(DEG)	SPEED(KTS)
T-30	305	08
T-20	316	10
T-10	314	10
T- 0(1st T)	314	09
T+10	314	09
T+20	315	09
T+30	317	09
T+40		
T+50		
T+60		

LEVEL #3		102 FT AGL
T-TIME(SEC)	DIR(DEG)	SPEED(KTS)
T-30	307	09
T-20	303	10
T-10	309	10
T- 0(1st T)	309	10
T+10	314	09
T+20	315	10
T+30	312	12
T+40		
T+50		
T+60		

LEVEL #4		202 FT AGL
T-TIME(SEC)	DIR(DEG)	SPEED(KTS)
T-30	306	08
T-20	289	10
T-10	295	12
T- 0(1st T)	304	11
T+10	305	10
T+20	305	13
T+30	297	12
T+40		
T+50		
T+60		

LC-33 METEOROLOGICAL TOWER
ANEMOMETER MEASURED WIND DATA

WSTM COOORDINATES X=484,982.64 Y=185,957.73 H=3983.00(BASE)

TABLE NO. 3

DATE 12 July 1984 M D T
DAY MONTH YEAR TIME

LEVEL #1 12 FT AGL

T-TIME(SEC)	DIR(DEG)	SPEED(KTS)
T-30	296	06
T-20	296	04
T-10	296	01
T- 0(1st T)	281	03
T+10	292	02
T+20	278	00
T+30	278	00
T+40		
T+50		
T+60		

LEVEL #2 62 FT AGL

T-TIME(SEC)	DIR(DEG)	SPEED(KTS)
T-30	299	05
T-20	299	04
T-10	299	04
T- 0(1st T)	299	04
T+10	299	03
T+20	299	02
T+30	299	02
T+40		
T+50		
T+60		

LEVEL #3 102 FT AGL

T-TIME(SEC)	DIR(DEG)	SPEED(KTS)
T-30	285	06
T-20	285	06
T-10	281	05
T- 0(1st T)	288	05
T+10	289	04
T+20	285	04
T+30	283	03
T+40		
T+50		
T+60		

LEVEL #4 202 FT AGL

T-TIME(SEC)	DIR(DEG)	SPEED(KTS)
T-30	290	06
T-20	286	07
T-10	290	07
T- 0(1st T)	302	06
T+10	306	05
T+20	398	04
T+30	314	04
T+40		
T+50		
T+60		

TABLE 4

T-TIME PILOT-BALLOON MEASURED WIND DATA

DATE 12 July 1984

SITE: LC-33
TIME: 1400 MDT
WSTM COORDINATES:
X= 486,037.24
Y= 182,350.16
H= 3,977.30

LAYER MIDPOINT METERS AGL	DIRECTION DEGREES	SPEED KNOTS
SURFACE	330	06
150	319	07
210	308	08
270	310	09
330	283	05
390	295	06
500	023	03
650	103	06
800	092	12
950	104	10
1150	097	12
1350	109	12
1550	105	17
1750	109	18
2000	108	18

SITE: SMR
TIME 1400 MDT
WSTM COORDINATES:
X= 472,444.85
Y= 213,781.96
H= 4,000.99

LAYER MIDPOINT METERS AGL	DIRECTION DEGREES	SPEED KNOTS
SURFACE		CALM
150	274	01
210	236	03
270	275	04
330	216	09
390	174	03
500	139	03
650	126	08
800	129	10
950	128	12
1150	132	11
1350	133	16
1550	134	16
1750	135	18
2000	134	16

All data obtained from RAPTS T-9 Radar tracked pilot-balloon observations.

TABLE 5

T-TIME PILOT-BALLOON MEASURED WIND DATA

DATE 12 July 1984

SITE: LC-33
TIME: 1445 MDT
WSTM COORDINATES:
X= 486,037.24
Y= 182,350.16
H= 3,977.30

LAYER MIDPOINT METERS AGL	DIRECTION DEGREES	SPEED KNOTS
SURFACE		CALM
150		CALM
210	162	02
270	188	01
330	208	02
390	210	02
500	040	08
650	024	08
800	059	11
950	060	10
1150	072	14
1350	083	19
1550	092	16
1750	189	14
2000	102	16

SITE: SMR
TIME 1445 MDT
WSTM COORDINATES:
X= 472,444.85
Y= 213,781.96
H= 4,000.99

LAYER MIDPOINT METERS AGL	DIRECTION DEGREES	SPEED KNOTS
SURFACE	150	04
150	070	02
210	105	02
270	137	03
330	122	05
390	126	06
500	116	05
650	116	05
800	093	07
950	094	11
1150	093	08
1350	112	10
1550	115	16
1750	123	15
2000	124	13

All data obtained from RAPTS T-9 Radar Tracked Pilot-Balloon Observations.

TABLE 6

AIMING AND T-TIME COMPUTER MET MESSAGE DATA

12 July 1984

WSD 1045 MDT
METCM1324064
121680122881

00044004	29870881
01070005	29850871
02141005	29740846
03164007	29400808
04191012	28980762
05192014	28570718
06191015	28220677
07193014	27920637
08185012	27570599
09190015	27280563
10193016	27060529
11142010	26680496
12178005	26100450

WSD 1215 MDT
METCM1324064
121830122880

00587001	30250880
01552006	30070870
02066006	29850846
03154012	29520808
04178014	29060762
05194019	28660719
06181009	28280677
07168013	27880637
08150014	27630599
09204013	27330563
10212019	26950529
11167015	26570496
12196008	26320450

SMR 1245 MDT
METCM1325064
121880122880

00240002	30480880
01226003	30180870
02252006	29890846
03196008	29560808
04198019	29160762
05202019	28700719
06208016	28280677
07169011	27880637
08141013	27600599
09152012	27310563
10185014	27100529
11214014	26820497
12206006	26320451

WSD 1400 MDT
METCM1324064
122000122879

00587007	29920879
01558012	30160869
02445001	30060845
03215010	29750807
04222015	29300762
05224019	28800719
06229020	28350677
07208015	28000637
08184013	27700599
09206009	27340563
10227010	27030529
11193011	26750497
12165005	26330451

SMR 145 MDT
METCM1325064
122080122879

00267004	30440879
01183001	30260869
02213004	29960845
03177009	29520807
04210013	29080761
05225013	28590718
06237011	28160676
07221011	27810636
08172008	27510598
09225010	27220562
10271009	26900527
11209010	26620495
12198008	26190449

STATION ALTITUDE 3989.00 FEET MSL
12 JULY 84 1045 MDT
ASCENSION NO. 372

SIGNIFICANT LEVEL DATA
1940020372
WHITE SANDS
TABLE 7

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	REL.HUM. PERCENT
880.9	3989.0	22.9	18.0	74.0
863.2	4571.9	22.9	16.0	65.0
850.0	5013.8	22.4	15.0	63.0
831.8	5632.0	20.8	13.5	63.0
771.1	7770.5	15.7	10.5	71.0
712.3	9966.9	10.0	8.6	91.0
700.0	10444.4	10.0	8.3	89.0
664.8	11848.5	6.1	5.5	96.0
649.1	12494.1	6.2	2.1	75.0
640.1	12870.5	5.2	3.4	88.0
630.7	13267.9	4.0	3.6	97.0
576.8	15643.0	-.4	-.7	98.0
557.1	16555.5	-2.5	-2.8	98.0
551.4	16825.5	-.4	-.7	98.0
548.8	16949.9	-1.6	-1.9	98.0
531.6	17784.3	-2.5	-2.8	98.0
523.3	18195.4	-3.0	-6.0	80.0
517.6	18479.5	-6.0	-9.5	76.0
509.0	18911.1	-6.5	-10.7	72.0
500.0	19370.3	-6.5	-8.9	83.0
490.5	19863.6	-7.2	-9.3	85.0
471.9	20852.3	-9.1	-16.5	55.0
460.8	21455.8	-11.4	-22.0	41.0
459.2	21543.8	-10.4	-16.8	59.0
450.0	22054.7	-12.4	-25.3	33.0
416.8	24080.9	-17.8	-37.4	16.0
400.0	24974.0	-18.5	-38.0	16.0

STATION ALTITUDE 3989.00 FEET MSL
12 JULY 84 1045 MDT
ASCENSION NO. 372

UPPER AIR DATA
1940020372
WHITE SANDS

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

TABLE 8

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	TEMPERATURE DEWPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
3989.0	880.9	22.9	18.0	74.0	1027.4	673.3	25.0	4.1	1.000316
4000.0	880.6	22.9	18.0	73.8	1027.0	673.3	25.5	4.1	1.000316
4500.0	865.4	22.9	16.2	66.1	1010.1	673.0	47.1	4.0	1.000305
5000.0	850.4	22.4	15.0	63.1	994.7	672.3	66.8	4.4	1.000296
5500.0	835.7	21.1	13.8	63.0	982.1	670.7	81.4	5.3	1.000288
6000.0	821.0	19.9	13.0	64.4	969.2	669.2	91.5	6.4	1.000282
6500.0	806.6	18.7	12.3	66.2	956.2	667.8	97.7	7.5	1.000277
7000.0	792.4	17.5	11.6	68.1	943.5	666.4	101.8	8.4	1.000272
7500.0	778.5	16.3	10.9	70.0	930.9	665.0	105.1	9.3	1.000266
8000.0	764.7	15.1	10.3	73.1	918.5	663.5	105.1	10.6	1.000262
8500.0	751.1	13.8	10.0	77.6	906.1	662.0	105.1	11.8	1.000258
9000.0	737.6	12.5	9.6	82.2	894.0	660.5	105.9	13.0	1.000255
9500.0	724.4	11.2	9.1	86.7	882.1	658.9	107.4	14.0	1.000251
10000.0	711.4	10.0	8.6	90.9	870.1	657.5	108.6	15.0	1.000247
10500.0	698.6	9.8	8.2	89.3	854.9	657.3	108.5	15.3	1.000242
11000.0	685.9	8.5	7.2	91.8	843.7	655.6	108.3	15.6	1.000237
11500.0	673.4	7.1	6.2	94.3	832.7	653.9	108.1	15.5	1.000231
12000.0	661.1	6.1	4.8	91.1	820.6	652.7	107.5	14.8	1.000225
12500.0	649.0	6.2	2.1	75.2	806.0	652.5	107.0	14.1	1.000214
13000.0	637.0	4.8	3.5	90.9	794.7	651.0	107.2	13.6	1.000216
13500.0	625.2	3.6	3.2	97.1	783.4	649.6	107.7	13.1	1.000213
14000.0	613.6	2.6	2.3	97.3	771.6	648.4	108.0	12.7	1.000208
14500.0	602.1	1.7	1.4	97.5	759.9	647.3	106.5	13.1	1.000203
15000.0	590.9	.8	.5	97.7	748.4	646.1	105.1	13.5	1.000199
15500.0	579.9	-.1	-.4	97.9	737.1	645.0	104.9	13.7	1.000194
16000.0	569.0	-1.2	-1.5	98.0	726.3	643.6	105.6	13.9	1.000190
16500.0	558.3	-2.4	-2.6	98.0	715.8	642.2	106.3	14.0	1.000185
17000.0	547.8	-1.7	-1.9	98.0	700.3	643.1	106.5	13.8	1.000183
17500.0	537.4	-2.2	-2.5	98.0	688.4	642.4	106.7	13.6	1.000180
18000.0	527.2	-2.6	-4.4	88.6	677.1	641.6	106.8	13.3	1.000174
18500.0	517.2	-6.0	-9.6	75.8	673.0	637.4	105.7	12.6	1.000166
19000.0	507.2	-6.5	-10.3	74.1	661.3	636.8	104.3	11.9	1.000162
19500.0	497.5	-6.7	-9.0	83.5	648.9	636.7	102.7	11.2	1.000161
20000.0	487.9	-7.5	-10.2	80.9	638.3	635.7	101.1	10.2	1.000157
20500.0	478.4	-8.4	-13.7	65.7	628.5	634.4	99.1	9.1	1.000152
21000.0	469.2	-9.7	-17.7	51.6	619.5	632.8	96.7	7.8	1.000146
21500.0	460.0	-10.9	-19.2	50.0	610.4	631.2	93.2	6.2	1.000143
22000.0	451.0	-12.2	-24.2	35.8	601.6	629.6	86.7	4.8	1.000139
22500.0	442.0	-13.6	-27.7	29.3	592.9	627.8	74.2	3.8	1.000136
23000.0	433.2	-14.9	-30.4	25.1	584.2	626.2	55.0	3.2	1.000133

STATION ALTITUDE 3989.00 FEET MSL
12 JULY 84 1045 MDT
ASCENSION NO. 372

UPPER AIR DATA
1940020372
WHITE SANDS

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

TABLE 8 Cont'd

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
23500.0	424.6	-16.3	-33.5	20.9	575.6	624.5			1.000130
24000.0	416.2	-17.6	-36.8	16.7	567.1	622.9			1.000128
24500.0	407.8	-18.1	-37.7	16.0	556.9	622.2			1.000125

STATION ALTITUDE 3989.00 FEET MSL
12 JULY 84 1045 MDT
ASCENSION NO. 372

MANDATORY LEVELS
1940020372
WHITE SANDS

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

TABLE 9

PRESSURE	GEOPOTENTIAL	TEMPERATURE		REL.HUM.	WIND DATA	
		AIR	DEWPOINT	PERCENT	DIRECTION	SPEED
MILLIBARS	FEET	DEGREES CENTIGRADE			DEGREES(TN)	KNOTS
850.0	5010.	21.4	15.0	63.	67.2	4.5
800.0	6731.	17.2	12.0	67.	99.7	7.9
750.0	8536.	13.7	9.9	78.	105.1	11.9
700.0	10434.	11.0	8.3	89.	108.5	15.3
650.0	12443.	6.2	2.3	76.	107.0	14.2
600.0	14582.	3.5	1.2	98.	106.3	13.1
550.0	16870.	-3.0	-1.3	98.	106.5	13.9
500.0	19343.	-7.5	-8.9	83.	103.1	11.4
450.0	22020.	-17.4	-25.3	33.	85.9	4.7
400.0	24932.	-19.5	-38.0	16.		

STATION ALTITUDE 3989.00 FEET MSL
12 JULY 84 1215 MDT
ASCENSION NO. 373

SIGNIFICANT LEVEL DATA
1940020373
WHITE SANDS

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

TABLE 10

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT DEGREES CENTIGRADE	REL.HUM. PERCENT
860.3	3989.0	27.0	16.6	53.0
861.6	4610.4	23.9	14.0	54.0
850.0	5000.3	23.6	14.3	56.0
824.3	5880.3	21.8	12.9	57.0
791.5	7033.2	18.3	11.1	63.0
726.1	9440.9	12.1	8.9	81.0
716.7	9800.4	11.7	7.2	74.0
700.0	10449.2	10.8	6.9	77.0
667.0	11767.0	7.3	1.8	68.0
651.0	12423.7	6.1	2.0	75.0
638.8	12932.4	4.0	1.0	81.0
630.0	13303.7	4.0	-2.6	62.0
623.5	13581.3	4.0	-2.2	64.0
606.4	14324.5	3.0	-.5	78.0
585.0	15279.1	.6	-1.3	87.0
579.6	15524.5	.7	-2.0	82.0
562.4	16320.0	-.4	-2.8	84.0
542.6	17258.5	-3.7	-6.3	82.0
533.9	17678.6	-4.3	-5.8	89.0
524.3	18150.4	-3.7	-4.4	95.0
516.1	18559.1	-5.8	-6.1	98.0
509.4	18895.7	-7.0	-12.3	66.0
500.0	19373.2	-7.8	-15.2	55.0
479.6	20437.5	-8.8	-15.1	60.0
469.7	20969.5	-8.6	-21.3	35.0
455.7	21741.2	-8.8	-20.5	38.0
433.0	23035.3	-12.2	-26.9	28.0
400.0	25016.8	-15.6	-32.4	22.0

STATION ALTITUDE 3989.00 FEET MSL
12 JULY 84 1215 MDT
ASCENSION NO. 373

UPPER AIR DATA
1940020373
WHITE SANDS

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

TABLE 11

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	TEMPERATURE DEWPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
3989.0	880.3	27.0	16.6	53.0	1013.4	677.7	330.0	1.0	1.000306
4000.0	880.0	26.9	16.6	53.0	1013.2	677.6	332.8	.9	1.000305
4500.0	864.9	24.5	14.5	53.8	1005.1	674.5	63.9	2.2	1.000295
5000.0	850.0	23.6	14.3	56.0	990.6	673.6	76.3	4.4	1.000291
5500.0	835.3	22.6	13.5	56.6	977.1	672.3	80.2	6.8	1.000285
6000.0	820.8	21.4	12.7	57.6	964.1	670.9	82.1	9.1	1.000279
6500.0	806.5	19.9	12.0	60.2	952.4	669.1	83.2	11.5	1.000274
7000.0	792.4	18.4	11.2	62.8	940.8	667.3	90.4	12.5	1.000269
7500.0	778.4	17.1	10.8	66.5	928.3	665.8	96.7	13.6	1.000265
8000.0	764.6	15.8	10.4	70.2	916.0	664.3	101.5	14.7	1.000261
8500.0	751.0	14.5	9.9	74.0	903.8	662.8	104.7	15.7	1.000258
9000.0	737.7	13.2	9.4	77.7	891.9	661.3	107.6	16.7	1.000253
9500.0	724.5	12.0	8.7	79.8	879.9	659.8	107.9	16.3	1.000248
10000.0	711.5	11.4	7.1	74.9	866.3	659.0	106.8	15.2	1.000240
10500.0	698.7	10.7	6.7	76.7	853.0	658.1	105.6	14.1	1.000236
11000.0	686.0	9.3	4.8	73.2	842.0	656.3	103.6	12.5	1.000229
11500.0	673.6	8.0	2.8	69.8	831.0	654.6	101.0	10.9	1.000221
12000.0	661.3	6.9	1.9	70.5	819.4	653.2	98.1	9.7	1.000216
12500.0	649.2	5.8	1.9	75.9	807.4	652.0	96.9	10.0	1.000214
13000.0	637.2	4.0	.4	77.5	797.9	649.8	95.7	10.3	1.000209
13500.0	625.4	4.0	-2.3	63.4	783.6	649.6	94.8	10.4	1.000200
14000.0	613.8	3.4	-1.1	71.9	770.4	649.0	93.9	10.5	1.000200
14500.0	602.4	2.6	-.6	79.7	758.4	648.1	94.2	11.2	1.000198
15000.0	591.2	1.3	-1.0	84.4	747.7	646.6	96.0	13.0	1.000195
15500.0	580.1	.7	-1.9	82.5	735.5	645.8	97.4	14.8	1.000191
16000.0	569.3	.0	-2.5	83.2	723.4	645.0	100.9	16.1	1.000187
16500.0	558.5	-1.0	-3.4	83.6	712.8	643.7	105.3	17.3	1.000183
17000.0	548.0	-2.8	-5.3	82.6	704.1	641.5	109.1	18.5	1.000178
17500.0	537.6	-4.0	-6.0	86.0	694.0	640.0	110.6	18.5	1.000175
18000.0	527.3	-3.9	-4.8	93.1	680.2	640.2	111.6	18.0	1.000174
18500.0	517.3	-5.5	-5.8	97.6	671.3	638.3	112.6	17.5	1.000170
19000.0	507.3	-7.2	-12.9	63.6	663.4	635.9	108.6	16.2	1.000160
19500.0	497.5	-7.9	-15.2	55.6	652.5	634.9	103.2	14.9	1.000155
20000.0	487.9	-8.4	-15.2	57.9	641.0	634.4	98.3	13.6	1.000153
20500.0	478.4	-8.8	-15.7	57.1	629.5	633.9	99.8	11.9	1.000150
21000.0	469.1	-8.6	-21.2	35.1	617.2	633.9	101.9	10.2	1.000144
21500.0	460.0	-8.7	-20.7	37.1	605.5	633.8	104.2	8.9	1.000141
22000.0	451.1	-9.5	-21.7	36.0	595.4	632.9	106.5	7.9	1.000138
22500.0	442.2	-10.8	-24.2	32.1	586.8	631.2	109.5	7.0	1.000135
23000.0	433.6	-12.1	-26.7	28.3	578.3	629.6			1.000133

STATION ALTITUDE 3989.00 FEET MSL
12 JULY 84 1215 MDT
ASCENSION NO. 373

UPPER AIR DATA
1940020373
WHITE SANDS

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

TABLE 11 Cont'd

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	TEMPERATURE DEWPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
23500.0	425.0	-13.0	-28.2	26.6	568.8	628.5			1.000130
24000.0	416.6	-13.9	-29.5	25.1	559.5	627.5			1.000128
24500.0	408.4	-14.7	-30.9	23.6	550.2	626.4			1.000125
25000.0	400.3	-15.6	-32.3	22.1	541.1	625.4			1.000123

STATION ALTITUDE 3989.00 FEET MSL
12 JULY 84 1215 MDT
ASCENSION NO. 373

MANDATORY LEVELS
19400320373
WHITE SANDS

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

TABLE 12

PRESSURE	GEOPOTENTIAL	TEMPERATURE		REL.HUM.	WIND DATA	
		AIR	DEWPOINT	PERCENT	DIRECTION	SPEED
MILLIBARS	FEET	DEGREES CENTIGRADE			DEGREES(TN)	KNOTS
850.0	4997.	2[illegible].6	14.3	56.	76.2	4.4
800.0	6726.	1[illegible].2	11.6	61.	86.4	12.0
750.0	8535.	1[illegible].4	9.9	74.	105.0	15.8
700.0	10439.	1[illegible].8	6.9	77.	105.7	14.2
650.0	12452.	[illegible].9	1.9	75.	97.0	10.0
600.0	14590.	[illegible].3	-.7	81.	94.6	11.6
550.0	16883.	-[illegible].5	-5.0	83.	108.4	18.2
500.0	19346.	-[illegible].8	-15.2	55.	104.8	15.2
450.0	22027.	-[illegible].6	-22.0	36.	106.8	7.9
400.0	24974.	-1[illegible].6	-32.4	22.		

STATION ALTITUDE 3997.30 FEET MSL
12 JULY 84 1245 MDT
ASCENSION NO. 132

SIGNIFICANT LEVEL DATA
1940060132
S M R

GEODETIC COORDINATES
32.48034 LAT DEG
106.42307 LON DEG

TABLE 13

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	REL.HUM. PERCENT
880.2	3997.3	29.1	15.2	43.0
871.7	4280.1	26.5	11.4	39.0
850.0	5008.3	24.2	11.9	46.0
743.6	8797.5	15.0	8.7	66.0
700.0	10467.9	10.2	5.4	72.0
690.2	10853.8	9.7	2.8	62.0
687.8	10949.0	9.5	4.3	70.0
664.8	11874.7	7.4	1.0	64.0
622.6	13638.6	3.0	.4	83.0
614.4	13992.2	2.8	-3.3	64.0
603.4	14473.3	2.3	-.6	81.0
562.3	16339.3	-1.1	-2.8	88.0
532.6	17760.5	-3.0	-5.3	84.0
523.6	18205.4	-2.5	-11.5	50.0
509.8	18900.9	-3.9	-16.4	37.0
500.0	19404.0	-5.0	-14.5	47.0
470.0	20994.4	-8.4	-17.4	48.0
448.4	22192.2	-9.9	-23.4	32.0
422.2	23708.5	-14.0	-28.5	28.0
400.0	25054.0	-15.6	-30.7	26.0

STATION ALTITUDE 3997.30 FEET MSL
12 JULY 84 1245 MDT
ASCENSION NO. 132

UPPER AIR DATA
1940060132
S M R
TABLE 14

GEODETIC COORDINATES
32.48034 LAT DEG
106.42307 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
3997.3	880.2	29.1	15.2	43.0	1006.9	679.8	135.0	1.9	1.000296
4000.0	880.1	29.1	15.2	43.0	1006.9	679.8	134.9	1.9	1.000296
4500.0	865.1	25.8	11.6	41.1	1002.0	675.6	126.5	2.9	1.000281
5000.0	850.2	24.2	11.9	45.9	989.9	673.9	122.1	3.8	1.000280
5500.0	835.4	23.0	11.6	48.6	976.6	672.5	119.5	4.8	1.000277
6000.0	820.8	21.8	11.3	51.2	963.4	671.1	116.9	6.3	1.000273
6500.0	806.4	20.6	10.9	53.9	950.5	669.7	114.6	8.9	1.000269
7000.0	792.3	19.4	10.5	56.5	937.9	668.3	113.1	12.0	1.000265
7500.0	778.4	18.2	10.1	59.2	925.4	666.9	112.1	15.6	1.000261
8000.0	764.8	16.9	9.6	61.8	913.1	665.5	111.2	17.5	1.000257
8500.0	751.4	15.7	9.0	64.4	901.0	664.1	110.4	18.9	1.000253
9000.0	738.2	14.4	8.3	66.7	889.2	662.5	111.9	18.9	1.000248
9500.0	724.9	13.0	7.3	68.5	877.9	660.8	113.6	18.7	1.000243
10000.0	711.9	11.5	6.3	70.3	866.7	659.0	116.2	18.0	1.000236
10500.0	699.2	10.2	5.2	71.2	855.6	657.3	118.9	17.3	1.000232
11000.0	686.5	9.4	4.1	69.7	842.6	656.8	117.5	16.3	1.000227
11500.0	674.0	8.3	2.4	66.4	831.0	654.9	115.7	15.3	1.000220
12000.0	661.7	7.1	1.0	65.3	819.5	653.4	108.6	13.8	1.000214
12500.0	649.5	5.8	.9	70.7	807.9	652.0	99.2	12.6	1.000212
13000.0	637.6	4.6	.8	76.1	796.6	650.5	95.3	12.1	1.000209
13500.0	625.8	3.3	.5	81.5	785.5	649.0	91.5	11.8	1.000206
14000.0	614.2	2.8	-3.3	64.3	773.1	648.1	86.2	12.2	1.000196
14500.0	602.8	2.3	-.6	81.1	759.7	647.7	81.2	12.4	1.000198
15000.0	591.5	1.3	-1.2	83.0	748.0	646.6	76.3	11.9	1.000195
15500.0	580.4	.4	-1.8	84.9	736.5	645.5	77.1	11.5	1.000191
16000.0	569.6	-.5	-2.4	86.7	725.2	644.4	82.6	11.1	1.000188
16500.0	558.9	-1.3	-3.1	87.5	713.8	643.4	89.2	11.8	1.000184
17000.0	548.3	-2.0	-4.0	86.1	702.2	642.5	95.6	12.8	1.000180
17500.0	537.9	-2.7	-4.9	84.7	690.7	641.7	102.2	14.3	1.000176
18000.0	527.7	-2.7	-8.2	65.7	678.3	641.4	106.1	15.2	1.000168
18500.0	517.7	-3.1	-13.5	44.5	666.8	640.7	108.1	15.1	1.000160
19000.0	507.9	-4.1	-16.0	39.0	656.8	639.4	111.0	14.0	1.000155
19500.0	498.1	-5.2	-14.7	47.1	646.7	638.2	115.2	12.3	1.000154
20000.0	488.5	-6.3	-15.6	47.4	636.8	636.9	119.5	10.8	1.000152
20500.0	479.1	-7.3	-16.5	47.7	627.1	635.6	124.7	9.4	1.000149
21000.0	469.9	-8.4	-17.4	47.9	617.5	634.3	127.1	8.6	1.000146
21500.0	460.8	-9.0	-19.8	41.2	607.1	633.5	129.6	7.8	1.000142
22000.0	451.8	-9.7	-22.3	34.6	596.8	632.6	126.5	6.7	1.000138
22500.0	443.0	-10.7	-24.4	31.2	587.6	631.3	121.0	5.5	1.000136
23000.0	434.2	-12.1	-26.1	29.9	579.1	629.7	103.3	4.2	1.000133

STATION ALTITUDE 3997.30 FEET MSL
12 JULY 84 1245 MDT
ASCENSION NO. 132

UPPER AIR DATA
1940060132
S M R

GEODETIC COORDINATES
32.48034 LAT DEG
106.42307 LON DEG

TABLE 14 Cont'd

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
23500.0	425.7	-13.4	-27.8	28.6	570.7	628.0			1.000131
24000.0	417.3	-14.3	-29.0	27.6	561.4	626.9			1.000128
24500.0	409.0	-14.9	-29.8	26.8	551.5	626.2			1.000126
25000.0	400.9	-15.5	-30.6	26.1	541.8	625.4			1.000123

STATION ALTITUDE 3997.30 FEET MSL
12 JULY 84 1245 MDT
ASCENSION NO. 132

MANDATORY LEVELS
1940060132
S M R

GEODETIC COORDINATES
32.48034 LAT DEG
106.42307 LON DEG

TABLE 15

PRESSURE GEOPOTENTIAL		TEMPERATURE		REL.HUM.	WIND DATA	
		AIR	DEWPOINT	PERCENT	DIRECTION	SPEED
MILLIBARS	FEET	DEGREES CENTIGRADE			DEGREES(TN)	KNOTS
850.0	5005.	2[illegible].2	11.9	46.	122.1	3.8
800.0	6735.	2[illegible].0	10.7	55.	113.8	10.2
750.0	8551.	1[illegible].6	9.0	65.	110.4	19.0
700.0	10458.	1[illegible].2	5.4	72.	118.7	17.3
650.0	12470.	[illegible].9	1.0	71.	99.6	12.6
600.0	14606.	[illegible].0	-.8	82.	80.1	12.3
550.0	16898.	-[illegible].9	-3.8	86.	94.2	12.6
500.0	19376.	-[illegible].0	-14.5	47.	114.2	12.6
450.0	22068.	-[illegible].8	-22.9	33.	125.6	6.5
400.0	25012.	-1[illegible].6	-30.7	26.		

STATION ALTITUDE 3989.00 FEET MSL
12 JULY 84 1400 MDT
ASCENSION NO. 374

SIGNIFICANT LEVEL DATA
1940020374
WHITE SANDS

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

TABLE 16

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	REL.HUM. PERCENT
879.2	3989.0	23.4	17.8	71.0
873.8	4167.2	27.0	14.4	46.0
850.0	4968.6	26.0	12.5	43.0
812.0	6286.6	23.2	9.9	43.0
759.0	8204.7	18.0	7.4	50.0
700.0	10456.8	11.2	5.5	68.0
684.9	11054.8	9.5	5.3	75.0
647.3	12590.4	6.8	1.5	69.0
629.3	13350.8	4.8	1.1	77.0
617.2	13871.6	4.2	-2.0	64.0
593.1	14935.4	2.6	-3.7	63.0
575.7	15726.0	.9	-3.2	74.0
545.6	17137.6	-3.0	-3.5	96.0
536.9	17556.7	-3.6	-4.0	97.0
523.1	18234.6	-3.7	-7.5	75.0
518.9	18444.4	-3.5	-8.0	71.0
500.0	19405.5	-6.1	-11.8	64.0
494.9	19669.4	-6.7	-11.6	68.0
486.9	20088.2	-6.9	-19.1	37.0
473.7	20793.8	-7.0	-16.4	47.0
465.7	21230.3	-8.1	-16.0	53.0
457.0	21711.1	-9.8	-13.1	77.0
447.8	22226.5	-11.4	-13.3	86.0
436.7	22860.4	-11.5	-17.9	59.0
434.3	22999.4	-12.0	-20.5	49.0
424.4	23578.5	-13.6	-20.3	57.0
418.9	23904.7	-14.1	-26.5	34.0
416.0	24078.2	-14.1	-29.4	26.0
411.5	24349.8	-14.3	-30.4	24.0
400.0	25054.8	-16.0	-33.2	21.0

STATION ALTITUDE 3989.00 FEET MSL
12 JULY 84 1400 MDT
ASCENSION NO. 374

UPPER AIR DATA
1940023374
WHITE SANDS

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

TABLE 17

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	TEMPERATURE DEWPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
3989.0	879.2	23.4	17.8	71.0	1023.7	673.9	330.0	7.0	1.000316
4000.0	878.9	23.6	17.7	69.5	1022.6	674.1	330.2	6.9	1.000315
4500.0	863.8	26.6	13.6	44.8	997.1	676.8	343.2	4.0	1.000288
5000.0	849.1	25.9	12.4	43.0	982.6	675.9	33.6	2.0	1.000280
5500.0	834.5	24.9	11.4	43.0	969.5	674.6	97.7	3.4	1.000274
6000.0	820.1	23.8	10.5	43.0	956.5	673.3	114.7	6.3	1.000268
6500.0	805.9	22.6	9.7	43.8	943.9	671.9	121.4	9.7	1.000262
7000.0	791.9	21.3	9.1	45.6	931.8	670.3	125.6	14.9	1.000258
7500.0	778.1	19.9	8.4	47.4	919.9	668.7	127.6	20.0	1.000254
8000.0	764.5	18.6	7.7	49.3	908.2	667.1	127.1	18.8	1.000249
8500.0	751.0	17.1	7.3	52.4	896.7	665.4	126.5	17.2	1.000246
9000.0	737.6	15.6	7.0	56.4	885.3	663.7	125.6	15.7	1.000243
9500.0	724.5	14.1	6.5	60.4	874.2	661.9	124.5	14.4	1.000239
10000.0	711.6	12.6	6.0	64.3	863.2	660.2	124.2	14.1	1.000236
10500.0	698.9	11.1	5.5	68.5	852.4	658.4	126.3	16.9	1.000232
11000.0	686.3	9.7	5.3	74.4	841.2	656.8	127.8	19.6	1.000230
11500.0	673.8	8.7	4.2	73.3	828.9	655.6	127.2	21.0	1.000224
12000.0	661.5	7.8	3.0	71.3	816.6	654.5	126.5	22.1	1.000218
12500.0	649.5	7.0	1.7	69.4	804.5	653.3	125.5	22.8	1.000213
13000.0	637.5	5.7	1.3	73.3	793.2	651.9	120.4	19.3	1.000210
13500.0	625.8	4.6	.3	73.3	781.9	650.5	113.1	16.0	1.000205
14000.0	614.2	4.0	-2.2	63.9	769.6	649.6	109.4	14.3	1.000197
14500.0	602.8	3.3	-3.0	63.4	757.5	648.7	108.3	13.4	1.000193
15000.0	591.7	2.5	-3.7	63.9	745.6	647.7	107.5	12.4	1.000189
15500.0	580.6	1.4	-3.3	70.9	734.5	646.5	109.7	11.1	1.000188
16000.0	569.7	.1	-3.2	78.3	723.9	645.1	112.4	9.8	1.000186
16500.0	559.0	-1.2	-3.3	86.1	713.8	643.5	115.5	9.5	1.000184
17000.0	548.5	-2.6	-3.5	93.9	704.0	641.8	118.6	9.7	1.000181
17500.0	538.1	-3.5	-3.9	96.9	693.0	640.7	121.5	9.8	1.000178
18000.0	527.8	-3.7	-6.2	82.6	680.5	640.4	121.2	10.1	1.000172
18500.0	517.8	-3.7	-8.2	70.6	667.7	640.3	120.5	10.4	1.000166
19000.0	507.9	-5.0	-10.2	67.0	658.4	638.6	118.7	10.6	1.000162
19500.0	498.2	-6.3	-11.7	65.4	649.1	637.0	110.5	10.1	1.000158
20000.0	488.6	-6.9	-17.2	43.5	638.4	636.1	101.7	9.9	1.000151
20500.0	479.2	-7.0	-17.4	42.8	626.3	636.0	97.1	9.2	1.000148
21000.0	469.9	-7.5	-16.2	49.8	615.4	635.4	95.9	7.9	1.000146
21500.0	460.8	-9.1	-14.1	66.5	606.8	633.6	94.4	6.7	1.000146
22000.0	451.8	-10.7	-13.1	82.0	598.6	631.7	96.6	5.8	1.000146
22500.0	443.0	-11.4	-15.1	74.4	588.7	630.7	103.0	5.1	1.000142
23000.0	434.3	-12.0	-20.5	49.0	578.7	629.9	111.4	4.5	1.000136

STATION ALTITUDE 3989.00 FEET MSL
12 JULY 84 1400 MDT
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UPPER AIR DATA
1940020374
WHITE SANDS

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

TABLE 17 Cont'd

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	TEMPERATURE DEWPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
23500.0	425.7	-13.4	-20.3	55.9	570.3	628.2			1.000134
24000.0	417.3	-14.1	-28.0	29.6	560.9	627.2			1.000126
24500.0	409.0	-14.7	-31.0	23.4	551.0	626.5			1.000125
25000.0	400.9	-15.9	-33.0	21.2	542.6	625.0			1.000123

STATION ALTITUDE 3989.00 FEET MSL
12 JULY 84 1400 MDT
ASCENSION NO. 374

MANDATORY LEVELS
1940320374
WHITE SANDS

TABLE 18

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

PRESSURE	GEOPOTENTIAL	TEMPERATURE		REL.HUM.	WIND DATA	
		AIR	DEWPOINT		DIRECTION	SPEED
MILLIBARS	FEET	DEGREES	CENTIGRADE	PERCENT	DEGREES(TN)	KNOTS
850.0	4965.	[illegible]	12.5	43.	27.8	2.1
800.0	6707.	[illegible]	9.4	45.	123.6	11.9
750.0	8532.	[illegible]	7.3	53.	126.4	17.1
700.0	10446.	[illegible]	5.5	68.	126.1	16.6
650.0	12464.	[illegible]	1.8	69.	125.8	23.0
600.0	14610.	[illegible]	-3.2	63.	108.1	13.1
550.0	16906.	[illegible]	-3.4	93.	118.1	9.6
500.0	19378.	[illegible]	-11.8	64.	112.3	10.2
450.0	22068.	[illegible]	-13.2	84.	97.6	5.6
400.0	25012.	[illegible]	-33.2	21.		

STATION ALTITUDE 3997.30 FEET MSL
12 JULY 84 1445 MDT
ASCENSION NO. 133

SIGNIFICANT LEVEL DATA
1940060133
S M R

TABLE 19

GEODETIC COORDINATES
32.48034 LAT DEG
106.42307 LON DEG

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT DEGREES CENTIGRADE	REL.HUM. PERCENT
878.9	3997.3	29.1	15.2	43.0
876.9	4063.9	28.3	14.2	42.0
850.0	4968.7	25.6	8.6	34.0
816.5	6121.9	21.4	8.3	43.0
748.0	8590.1	14.9	6.5	57.0
700.0	10419.2	9.3	4.3	71.0
645.4	12618.5	4.7	1.7	81.0
598.3	14639.0	.9	-2.3	79.0
583.5	15301.5	.5	-4.1	71.0
557.9	16481.2	-2.2	-5.7	77.0
516.0	18510.2	-5.5	-15.5	45.0
500.0	19321.1	-6.9	-18.5	39.0
472.4	20773.3	-9.0	-18.7	45.0
456.7	21631.0	-11.1	-18.5	54.0
449.8	22015.4	-11.5	-26.3	28.0
429.1	23199.4	-13.4	-31.5	20.0
421.6	23640.9	-13.4	-32.6	18.0
400.0	24948.7	-17.0	-34.5	20.0

STATION ALTITUDE 3997.30 FEET MSL
12 JULY 84 1445 MDT
ASCENSION NO. 133

UPPER AIR DATA
1940060133
S M R

GEODETIC COORDINATES
32.48034 LAT DEG
106.42307 LON DEG

TABLE 20

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
3997.3	878.9	29.1	15.2	43.0	1005.4	679.8	150.0	4.1	1.000296
4000.0	878.8	29.1	15.2	43.0	1005.5	679.8	149.9	4.1	1.000296
4500.0	863.8	27.0	11.5	38.1	996.6	677.0	133.7	4.5	1.000279
5000.0	849.1	25.5	8.6	34.2	985.5	674.9	121.0	5.2	1.000267
5500.0	834.4	23.7	8.6	38.1	974.4	672.9	111.7	6.1	1.000265
6000.0	820.0	21.8	8.4	42.0	963.4	670.8	104.9	7.1	1.000263
6500.0	805.6	20.4	8.1	45.1	951.2	669.2	99.9	8.2	1.000260
7000.0	791.4	19.1	7.8	48.0	938.7	667.7	99.3	9.1	1.000256
7500.0	777.5	17.8	7.5	50.8	926.4	666.2	103.6	10.2	1.000253
8000.0	763.8	16.5	7.0	53.7	914.2	664.6	111.6	11.8	1.000249
8500.0	750.4	15.1	6.6	56.5	902.3	663.1	116.8	13.4	1.000245
9000.0	737.0	13.6	6.1	60.1	890.9	661.3	120.5	14.7	1.000242
9500.0	723.7	12.1	5.5	64.0	879.6	659.6	122.4	14.2	1.000238
10000.0	710.7	10.6	4.9	67.8	868.6	657.7	124.7	13.6	1.000234
10500.0	697.9	9.1	4.2	71.4	857.4	656.0	128.0	13.0	1.000230
11000.0	685.1	8.1	3.7	73.6	845.0	654.8	131.4	12.4	1.000226
11500.0	672.6	7.0	3.1	75.9	832.7	653.5	135.0	11.8	1.000222
12000.0	660.3	6.0	2.5	78.2	820.6	652.3	134.1	11.2	1.000218
12500.0	648.2	4.9	1.9	80.5	808.7	651.0	131.7	10.7	1.000214
13000.0	636.2	4.0	1.0	80.6	796.6	649.8	128.0	11.2	1.000210
13500.0	624.4	3.0	-.0	80.1	784.7	648.6	123.7	11.3	1.000205
14000.0	612.8	2.1	-1.0	79.6	772.9	647.5	115.9	10.5	1.000201
14500.0	601.4	1.2	-2.0	79.1	761.3	646.3	108.1	9.7	1.000196
15000.0	590.2	.7	-3.3	74.6	748.5	645.7	100.8	8.7	1.000191
15500.0	579.1	.0	-4.4	72.0	736.3	644.8	101.3	8.3	1.000186
16000.0	568.2	-1.1	-5.0	74.6	725.6	643.5	109.5	8.2	1.000183
16500.0	557.5	-2.2	-5.8	76.7	714.9	642.1	118.9	8.6	1.000180
17000.0	546.9	-3.0	-7.9	68.8	703.7	641.0	128.2	9.2	1.000174
17500.0	536.5	-3.9	-10.3	60.9	692.6	639.9	136.9	9.4	1.000169
18000.0	526.2	-4.7	-12.8	53.0	681.7	638.9	146.0	9.4	1.000164
18500.0	516.2	-5.5	-15.5	45.2	670.9	637.8	148.5	9.4	1.000159
19000.0	506.3	-6.3	-17.3	41.4	660.3	636.7	146.5	9.3	1.000155
19500.0	496.5	-7.2	-18.5	39.7	649.6	635.7	137.9	9.3	1.000152
20000.0	486.9	-7.9	-18.6	41.6	638.7	634.9	124.1	9.8	1.000150
20500.0	477.5	-8.6	-18.7	43.9	628.1	634.0	116.5	10.2	1.000147
21000.0	468.2	-9.6	-18.6	47.4	618.1	632.9	111.6	10.4	1.000145
21500.0	459.1	-10.8	-18.5	52.6	608.8	631.4	112.4	9.6	1.000143
22000.0	450.1	-11.5	-25.9	29.0	598.8	630.4	114.0	8.8	1.000137
22500.0	441.2	-12.3	-28.3	24.7	588.9	629.4	111.0	8.3	1.000134
23000.0	432.5	-13.1	-30.5	21.3	579.1	628.4	107.9	7.6	1.000132

STATION ALTITUDE 3997.30 FEET MSL
12 JULY 84 1445 MDT
ASCENSION NO. 133

UPPER AIR DATA
1940060133
S M R

GEODETIC COORDINATES
32.48034 LAT DEG
106.42307 LON DEG

TABLE 20 Cont'd

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
23500.0	424.0	-13.4	-32.2	18.6	568.4	628.0	105.0	6.4	1.000129
24000.0	415.6	-14.4	-33.1	18.5	559.3	626.8			1.000127
24500.0	407.3	-15.8	-33.8	19.3	551.1	625.1			1.000125

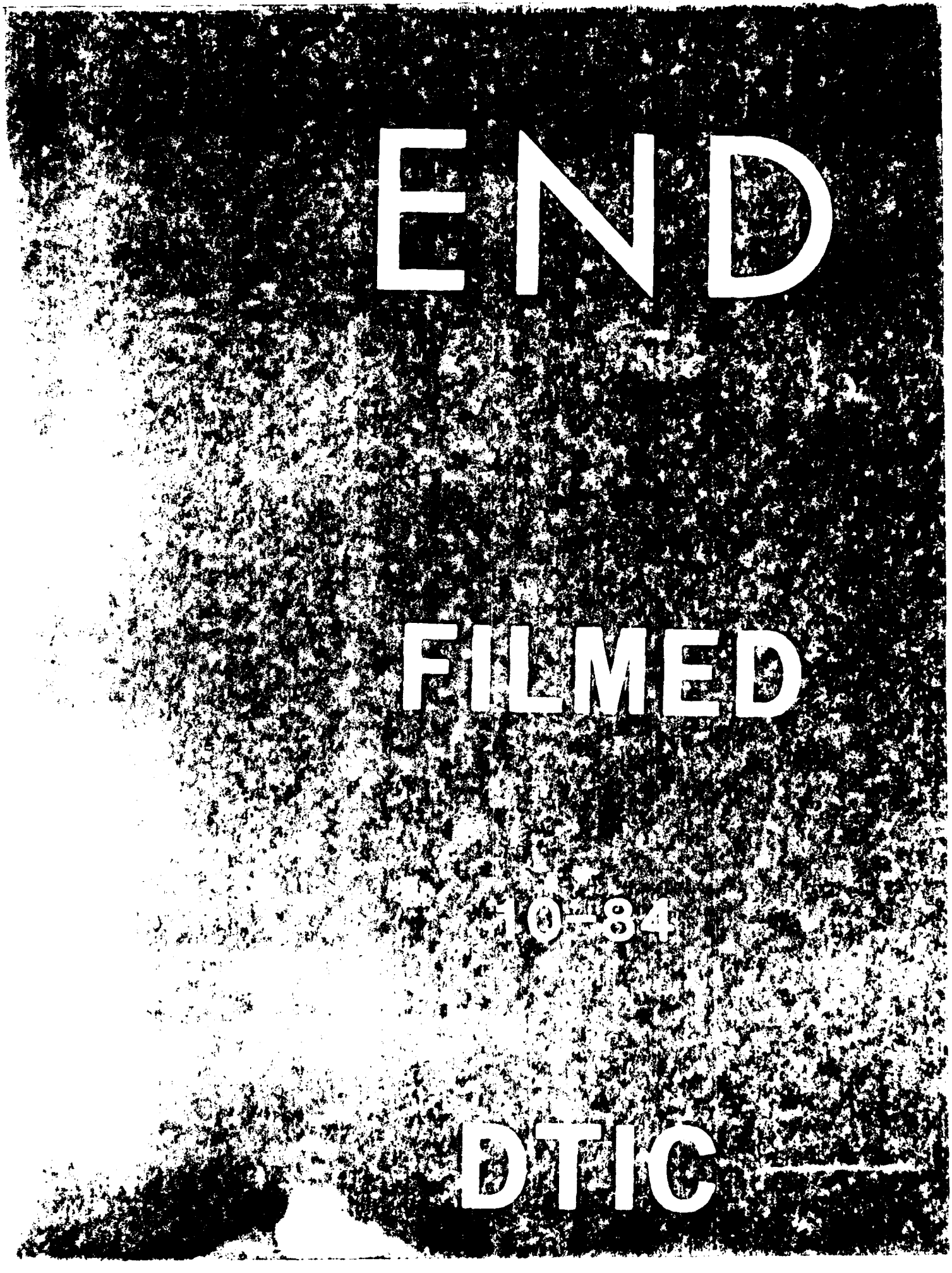
STATION ALTITUDE 3997.30 FEET MSL
12 JULY 84 1445 MDT
ASCENSION NO. 133

MANDATORY LEVELS
1940060133
S M R

GEODETIC COORDINATES
32.48034 LAT DEG
106.42307 LON DEG

TABLE 21

PRESSURE	GEOPOTENTIAL	TEMPERATURE		REL.HUM.	WIND DATA	
		AIR	DEWPOINT		DIRECTION	SPEED
MILLIBARS	FEET	DEGREES	CENTIGRADE	PERCENT	DEGREES(TN)	KNOTS
850.0	4965.	[illegible]	8.6	34.	121.8	5.2
800.0	6696.	[illegible]	8.0	46.	99.2	8.6
750.0	8508.	[illegible]	6.5	57.	116.9	13.4
700.0	10409.	[illegible]	4.3	71.	127.4	13.1
650.0	12414.	[illegible]	2.0	80.	132.1	10.8
600.0	14547.	[illegible]	-2.2	79.	107.4	9.6
550.0	16832.	[illegible]	-7.3	71.	125.5	9.0
500.0	19294.	[illegible]	-18.5	39.	143.3	9.3
450.0	21970.	[illegible]	-26.0	29.	114.0	8.8
400.0	24907.	[illegible]	-34.5	20.		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